

Appl No. 10/686,233  
Amtd. dated February 9, 2006  
Reply to Office action of December 12, 2006

## BEST AVAILABLE COPY

### REMARKS/ARGUMENTS

The applicant would like to acknowledge, with thanks, the Office Action mailed December 12, 2005. This amendment and response is responsive to the Office Action mailed December 12, 2005. Presently, claims 1, 2-31 and 23-40 are pending in this application.

The examiner has acknowledged that claims 6-10, 13-17, 20, 26-30, 33-37 and 40 are directed to allowable subject matter. Claims 6-10, 13-17, 20, 26-30, 33-37 and 40 were objected to for depending upon a rejected base claim and would be allowable if rewritten in independent form containing all of the elements of the base claim and any intervening claim. Accordingly, claims 6, 13, 15, 20, 26, 33, 35 and 40 have been rewritten in independent form incorporating all of the elements of their corresponding base claim and intervening claims. Thus, claims 6-10, 13-17, 20, 26-30, 33-37 and 40 should now be in condition for allowance.

#### I. Response to Restriction Requirement

In the last Office Action, the Examiner made a restriction requirement of the following species:

- I. Claims 1-40.
- II. Claims 41-45 and 52-56.
- III. Claims 46-47 and 57-58.
- IV. Claims 48-50 and 59-61.
- V. Claims 51 and 62.

Applicant is hereby electing Group I. Claims 41-62 have been canceled without prejudice or disclaimer. Applicant reserves the right to prosecute claims 41-62 in future divisional applications.

#### II. Rejections under 35 U.S.C. § 103

Claims 1, 3-5, 11-12, 18-19, 21, 23-25, 31-32 and 38-39 stand rejected as being obvious based on the combination of U.S. Patent No. 6,864,852 to Chiang et al (*hereinafter* Chiang) and U.S. Patent No. 6,317,100 to Elson et al. (*hereinafter* Elson). For reasons that will now be set forth, claims 1, 3-5, 11-12, 18-19, 21, 23-25, 31-32 and 38-39

Independent claims 1 and 21 as currently amended recite an apparatus (an antenna system and wireless device respectively) comprising a plurality of active antenna elements for sending

Appl No. 10/686,233  
Amdt. dated February 9, 2006  
Reply to Office action of December 12, 2006

**BEST AVAILABLE COPY**

and receiving a wireless signal and at least one central passive conductive member situated between the plurality of antenna elements, having edges displaced from and substantially directed toward the plurality of active antenna elements, and cooperating therewith to establish a plurality of hemispherical beam patterns. By contrast, Chiang discloses the opposite of what is claimed in claims 1 and 21, that is Chiang discloses an antenna that has a central active element and a plurality of dipoles surrounding the active element (Abstract). Referring to the specification, Chiang discloses antenna arrays that have a single active element (reference number 202) and passive elements (reference number 200 in Fig. 4 or passive dipoles 308 in Fig. 20) that shape the radiation pattern from (or to) the active element (see col. 7, lines 34-36; col. 15, lines 59-61. The active element is in the center of the antenna system and the passive elements (*e.g., passive dipoles*) surround the active element. whereas claims 1 and 21 recite that the at least one passive elements are in the center and situated between the active elements. Thus, Chiang does not disclose, teach, suggest or motivate all of the elements of claims 1 and 21.

The aforementioned deficiency in Chiang is not remedied by any teaching of Elson. The examiner relies on Elson to teach that a plurality of active antenna elements is widely used in the art, which does not remedy the aforementioned deficiency in Chiang, nor does any other teaching in Elson remedy the aforementioned deficiency in Chiang.

Claims 3-5, 11-12, and 18-19 are directly dependent from claim 1 and therefore contain each and every element of claim 1, and claims 23-25, 31-32 and 38-39 are directly dependent from claim 21 and therefore contain each and every element of claim 21. Therefore, for the reasons already set forth for claims 1 and 21, claims 3-5, 11-12, 18-19, 23-25, 31-32 and 38-39 are not obvious in view of the combination of Chiang and Elson.

In addition to the reasons set forth above, claims 3 and 23 recite that the plurality of antenna elements are disposed along the periphery of the at least one conductive member. By contrast, the systems disclosed by Chiang have passive elements disposed along the periphery of the (single) active element (see Figs 3-5, 7, 9, 11, 13, 15, 17 and 19-20. Thus, in addition to the reasons set forth above, Chiang does not disclose, teach, suggest or motivate the subject matter of claims 3 and 23.

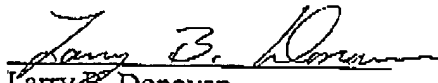
Appl No. 10/686,233  
Amdt. dated February 9, 2006  
Reply to Office action of December 12, 2006

**BEST AVAILABLE COPY****III. Conclusion**

For the reasons just set forth, the claims in this application as now standing are not anticipated nor obvious in view of the cited prior art, and thus should be in condition for allowance. If there are any fees necessitated by the foregoing communication, please charge such fees to our Deposit Account No. 50-0902, referencing our Docket No. 72255-33238.

Respectfully submitted,  
TUCKER, ELLIS & WEST

Date: 2-9-2006

  
Larry B. Donovan  
Registration No. 47,230  
1150 Huntington Building  
925 Euclid Avenue  
Cleveland, Ohio 44115-1475  
Customer No. 23380  
(216) 696-3864 (phone)  
(216) 592-5009 (fax)